

OBSTETRICS.

UNDER THE CHARGE OF

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The Result of Total Suppression of Urine in Pregnant and Non-pregnant Animals.—BLUMREICH (*Archiv für Gynäkologie*, 1902, Band xlvii., Heft 2) has previously made a series of investigations to determine whether increased sensibility is characteristic of the nervous system during pregnancy. His experiments were conducted by injecting creatin into the brain of pregnant animals after trephining, and in the second group of cases by injecting a solution of creatin into the blood current through the carotid artery. His results demonstrated the fact that in pregnant animals a condition of increased sensibility to reflex irritation is found in the nervous system.

This is corroborated by clinical observation, which shows that eclampsia, tetanus, and chorea are found with special frequency in pregnant patients.

In order to determine as nearly as possible the source of the irritating material causing eclampsia, Blumreich experimented upon pregnant and non-pregnant animals, by causing complete retention of urinary excreta by extirpating both kidneys. This operation is performed without much difficulty by placing the animal upon the abdomen, and under anaesthesia, making an incision along the back at the eleventh vertebra, in such a position that both kidneys can be readily removed through one incision. The first animal operated upon died from peritonitis through an accident which opened the peritoneal cavity; the others showed no evidence of infection. Ten pregnant animals and twelve non-pregnant were operated upon. In most of the cases rabbits were used.

There was no immediate effect following the operation. The animals moved about freely and ate with appetite. The first evidence of disease was increased irritability, so that the skin could not be touched or stroked without causing great uneasiness. Convulsions in groups of muscles then followed, with drawing of the head backward and toward the right side. In some cases clonic convulsions occurred. This gradually extended until most of the muscles of the body were involved. They resembled those which followed the injection of a solution of creatin into the carotid artery.

The nervous system showed not only increased excitability, but very soon in the progress of the case an anaesthetic effect was noticed. The animals not only ran about eagerly, but at times lay quietly, as if anaesthetized.

In non-pregnant animals convulsions began, on the average, 71 hours after the operation. Death occurred on the average 79 hours after the operation. In pregnant animals convulsions occurred in 63.4 hours after opera-

tion, and death followed the operation, on the average, in 70.8 hours. The shortest period in which convulsions occurred after operation was 40 hours—the longest, 104 hours.

Further experiment was made by feeding two groups of animals—one pregnant, the other non-pregnant—operated upon, with the same food, when it was found that the difference in the frequency and prompt occurrence of the convulsions between pregnant and non-pregnant animals is very much lessened.

The conclusions drawn from these experiments strengthen our belief that the brain of the pregnant animal is more sensitive to irritation than that of the non-pregnant. The substances which produce convulsions exist essentially in the non-pregnant as well as in the pregnant.

One fact stands out very clearly from these and other experiments upon this subject: eclampsia is not the result of uræmia. While lesions in the kidney may assist in producing eclampsia, these lesions are the result of the circulation of poisons which in themselves cause eclampsia. Experiments show that animals, whether herbivorous or carnivorous, generate poisons in the body during pregnancy. To isolate poisons which produce eclampsia it will be necessary to isolate from the blood, the central nervous system, or the urine substances which are capable of exciting irritation in the nervous system during pregnancy.

Tubal Gestation.—In the *Journal of Obstetrics of the British Empire*, June, 1902, CHAMPNEYS contributes an interesting paper upon this subject, with the results of his study of seventy-five cases of tubal gestation from the wards of St. Bartholomew's hospital.

He calls attention to the fact that more than twenty years ago these cases were diagnosed as hematocele, while later the same cases were called perimetritis. Before 1893 the diagnosis of ectopic gestation was not very commonly made. From 1865 to 1877 there were at St. Bartholomew's Hospital 129 cases in which hematocele was diagnosed, and of these five died, a mortality of nearly 3.87 per cent. During the next two years the mortality remained the same, but a smaller number of cases were diagnosed as hematocele. From 1891 to 1900 there were thirty-six cases of hematocele, of which none died. During the first twelve years the diagnosis of ectopic gestation was made six times, with one death. During the second twelve years it was made in ten cases, with two deaths; and during the next nine years in sixty-three cases, with nine deaths.

Champneys practises and teaches the following principles of treatment in these cases:

1. Cases of early, unruptured, living, tubal gestation should be operated on without delay.

2. Cases of rupture into the peritoneal cavity, with diffuse hemorrhage, should be dealt with according to circumstances.

- (a) If hemorrhage still continues when they come under observation some cases ought to be subjected to operation, taking into consideration the probability of the limitation and encapsulation of the blood continuing and the state of the patient at the time.

- (b) If seen after hemorrhage has ceased they should be treated expectantly.